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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,773	11/18/2002	Dennis R. Sigl	ITW7510.027	2407
33647	7590	04/07/2005	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW)			NGUYEN, TUYEN T	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	

2832

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/065,773

Applicant(s)

SIGL, DENNIS R.

Examiner

TUYEN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of group I filed 1/18/2005 is acknowledged. The traversal is on the ground(s) that group I-III are not distinct from each other. This is found persuasive. Examiner agrees with applicant's acknowledgement that claims 1, 9, 16 and 21 are related to the same invention for a molded bobbin having a single flange to maintain a uniform gap between a pair of ferrite cores.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 lack sufficient structure to support the functional language of "*to maintain a constant gap between the pair of ferrite cores.*"

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kataoka [JP 08-203754].

Kataoka discloses a bobbin [figures 13-14] for an induction device comprising :

- a molded body [figure 13] having a first end, a second end and a single flange [6c] centrally disposed between the first and second ends, the single flange constructed to directly engage a pair of E-shaped ferrite cores [7] such as a uniform gap is formed between the pair of ferrite cores.

wherein the flange having a constant thickness so as to maintain the uniform gap between the pair of ferrite cores [figure 14].

wherein the flange configured to besect the molded body.

Regarding claim 2, Kataoka discloses the flange includes a pair of ends, each end extending past the molded body.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 3-4 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka in view of Nakano [JP 55-105310].

Kataoka discloses the instant claimed invention except for the specific structure of the embossed surface.

Nakano discloses a bobbin [5] for an induction device comprising at least one flange [6] having at least one surface with embossed surface [6a, 6b] configured to engage a pole piece of a ferrite core.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the embossed surface design of Nakano in the flange surface of Kataoka for the purpose of supporting the pole of the ferrite cores.

Claims 6, 9-13, 15-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka in view of Nakano and Tobben et al. [US 4,596,974].

Kataoka in view of Nakano discloses the instant claimed invention except for the specific spring clips.

Tobben et al. discloses a bobbin [figure 3], a pair of cores supported in the bobbin and a pair of spring clips [49] designed to engage projections [65] on the bobbin.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use spring clips in Kataoka in view of Nakano, as suggested by Tobben et al., for the purpose of securing the ferrite cores to the bobbin.

The specific orientation of the spring clips would have been an obvious design choice since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Regarding claims 11 and 18, the specific material for the spring clips would have been an obvious design consideration for the purpose of reducing eddy current.

Regarding claim 15, the specific use of the bobbin in a welding-type device would have been an obvious design consideration based on the intended applications and environment.

Regarding claim 19, Tobben et al. discloses the spring clips configured to be oriented perpendicular to the molded bobbin.

Claims 7, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kataoka, as modified, as applied to claims 9 and 16 above, and further in view of Leuck et al. [US 3,665,358].

Kataoka, as modified, discloses the instant claimed invention except for the threaded hollow bosses.

Leuck et al. discloses a bobbin [figure 1] an induction device comprising a plurality of threaded hollow bosses [36].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of threaded hollow bosses in the bobbin of Kataoka, as modified, as suggested by Leuck et al., for the purpose of mounting.

Claims 9-12 and 15, as best understood in view of the rejection under 35 USC 112 second paragraph, are rejected under 35 U.S.C. 103(a) as being unpatentable over Toben et al. [US 4,596,974].

Toben et al. discloses an inductor assembly [figures 1-3] comprising:

- a pair of E-shaped ferrite cores [47];
- a plastic bobbin [3], the bobbin having an embossed flange [figure 3];

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- a constant gap between the pair of ferrite cores; and
- a pair of spring clips [67].

wherein the bobbin having a concave structure designed to engage the pair of spring clip.

Toben et al. discloses the instant claimed invention except for the specific arrangement of the pair of spring clips.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to re-arrange [orient] the concave structure of the bobbin so the pair of spring clips can be oriented transversely to the pair of ferrite cores, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN *TTN*

*Junglee T. Nguyen*